From Adversity Comes Innovation

How the COVID-19 Pandemic Accelerated Agencies' Use of Technology

govloop

infor

Introduction

When the coronavirus pandemic put the world on pause, government agencies took action. They had to get creative to ensure employees could still access the resources they needed to work, and that the public could access the services they require. And more often than not, technology fueled that creativity.

All government organizations had IT initiatives in place long before COVID-19 arrived. Mandates for modernization and digitization, use of artificial intelligence (AI) and cloud, and examples of public-private partnerships to facilitate adoption have been increasing in recent years. Still, nothing provided a swift kick like the pandemic.

And now that government employees know what's possible, they're not looking back. Use of technology to help with social distancing and budget planning, for example, has forever changed agencies at every level of government.

In fact, the common theme among participants in Infor's 2021 Public Sector Virtual Summit was change – specifically the adaptation of workflows and processes as agencies shifted from onsite to online. Read on to learn what government experts have planned.

Watch the gov2021 Virtual Summit on-demand

The experts who participated in the summit are:

Stewart Applbaum, Executive Vice President and General Manager, Infor

Michael Draeger, Director, HR Business Services, Fairfax County Public Schools, Virginia

Scott Morgan, Director, Human Resources, Waterbury, Connecticut

Michael Newsome, Customer Success Consultant, Questica

Jim Ollerton, then-IT Director, Elsinore Valley Municipal Water District, California

Leah Price, Budget Database Specialist, Greensboro, North Carolina

Nigel Stephens, Vice President, Government Affairs, Infor

**Laura Webb,** Human Resources Information Systems Manager, Waterbury, Connecticut

Kevin White, IT Technical Lead and Project Manager, Lawrence Livermore National Laboratory

Brandon Woolf, State Controller, Idaho

COVID-19 Response: **A Primer**

Several laws and directives addressed the pandemic and forced change at all levels of government. These include:

- **The Families First Coronavirus Response Act (FFCRA):** Passed in March 2020, it required employers to provide workers with paid sick leave or expanded family and medical leave for reasons specific to COVID-19. As a result, many agencies had to implement new policies and new ways of tracking leave. (FFCRA leave requirements expired Dec. 31, 2020.) One example is the human resources department of Waterbury, Connecticut, which put in place new processes and procedures that Scott Morgan and Laura Webb outlined. They are now using those to implement new policies, such as the city's voluntary vaccination policy.

- **The Coronavirus Aid, Relief, and Economic Security (CARES) Act:** Passed in March 2020, this $2.2 trillion economic stimulus bill included the $150 billion Coronavirus Relief Fund that provided funding to state, local and tribal governments for "necessary expenditures incurred due to the public health emergency," including IT modernizations. One example is how the state of Idaho posted on the controller's office Transparent Idaho website all CARES Act funds the state distributed.

- **Fiscal 2021 Omnibus Appropriations:** Signed on Dec. 27, 2020, it includes a $900 billion COVID-19 relief package and a $1.4 trillion government funding package. Among the funds are $730 million for the expansion of broadband in rural areas. It also extended the date by which state and local governments must spend CARES Act funds to Dec. 31, 2021, from Dec. 31, 2020.

- **The American Rescue Plan Act of 2021:** Signed into law on March 11, the $1.9 trillion economic package includes $350 billion for state, local, territorial and tribal governments to support equitable economic recovery, and $10 billion for those entities to help with capital projects such as broadband infrastructure.

- **The Executive Order on Ensuring a Data-Driven Response to COVID-19 and Future High-Consequence Public Health Threats:** President Joe Biden issued this order Jan. 21 to require that "the heads of all executive departments and agencies shall facilitate the gathering, sharing, and publication of COVID-19-related data, in coordination with the Coordinator of the COVID-19 Response and Counselor to the President." The goal is to enhance data collection and use it to better respond to the current pandemic and any future health threats. As part of this, agency leaders must designate a senior official to lead pandemic-related data issues and review health data systems' effectiveness and interoperability.
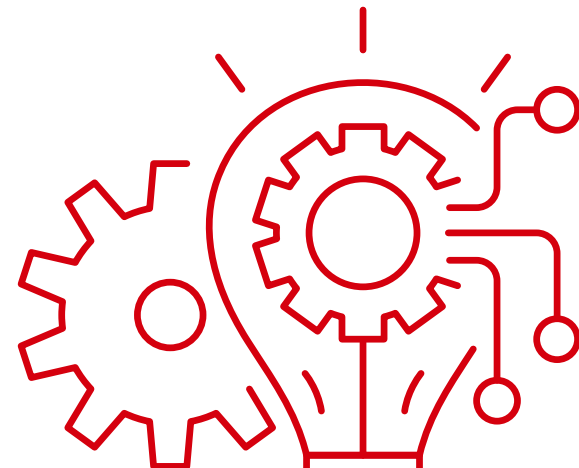
COVID-19 Response by the Numbers

In a recent survey, **95%** of respondents from local governments said their government used software to maintain service delivery during the pandemic.

(Source: "Local Government's Next Normal")

80% of respondents from local governments said the shift from paper to digital processes will be permanent as a result of the pandemic.

(Source: "Local Government's Next Normal")

Medicare provided **43.5%** of primary care visits via telehealth in April 2020, compared with 0.1% two months prior.

(Source: Health and Human Services Department)

Nearly one-third of Air Force employees may remain remote post-pandemic.

(Source: Air Force Magazine)

Use of internet services increased between **40%** and **100%** as a result of the lockdown, compared to pre-lockdown levels.

(Source: "Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice")

The Texas Workforce Commission received **millions** of calls per day when COVID hit, up from 60,000 per day.

(Source: Texas Workforce Commission)

"The acceleration of IT modernization efforts department- and agency-wide in response to the COVID-19 pandemic has highlighted what federal agencies have already done, and what still needs to be resolved to continue supporting the federal workforce."

– The Professional Services Council's 2020 Federal CIO Survey

Case Study: **The Pandemic Year at Lawrence Livermore National Laboratory**

The National Ignition Facility (NIF) at Lawrence Livermore National Laboratory (LLNL) is home to the world's largest and highest-energy laser. The facility is the size of a sports stadium that could fit three football fields. Employees there work on the world's most precise and reproducible laser beam, which can guide, amplify, reflect and focus 192 laser beams into a target about the size of a pencil eraser in a few billionths of a second. But it was not immune from pandemic-forced changes. Kevin White, IT Technical Lead and Project Manager at NIF, explained in detail two major modifications:

"Mobile has become very important," White said. Technicians can take a mobile device directly to a field site without having to go into NIF, "saving everybody's time and energy." Although NIF already had a mobile implementation, the introduction of field work has also led the facility to make other changes. For instance, inspections are now checklists that allow for one location for technicians to perform work and then system managers to approve it. It provides one place to document everything, White said, reducing and even eliminating paperwork. "Bringing out this field work is really going to change in 2021, and definitely 2022, as it really matures," White said.

"Videoconferencing has just accelerated the way we do things now and transfer knowledge," White said. Virtual reality (VR) is also transforming how NIF operates, he said. The two technologies enable subject-matter experts to collaborate with technicians in the field without physically having to be there. A side effect of that is the VR devices are helping improve training, White added. Users can bring up a blueprint on those, record their work and have a good overview of how to perform that work on that particular piece of equipment. "So, bringing on new technicians is a little bit easier because they can actually see what's going on," White said.

These changes have led NIF to put a fresh focus on the Internet of Things (IoT) going forward. "Usually we have people walking around the building doing work, just moving around doing things and so you can smell, hear, feel when things are not right," White said. "Now people are not there, so areas don't get touched, and so we really need now those IoT devices there to monitor vibration, temperature, humidity changes that you would normally just pick up."

The trick now is understanding what to do with the data from IoT devices and how often to collect it. For instance, "vibrations take a long time, and things take forever to oscillate. Do you really need to capture every six seconds, every minute, or do you really need a snapshot every five to 10 minutes?" White said. "There may be one or two pieces of equipment that are so sensitive or so safety-related that you really do want to monitor down to smaller time slices, but most equipment you can do 15-minute blocks and average the [minimum and maximum] spikes."

Tech Lessons Learned

Here's a look at how five government agencies turned to technology for pandemic response.

Funds Tracking

Waterbury, Connecticut

"We quickly realized that the associated costs with the requirements under FFCRA were going to be extremely high," said Scott Morgan, Director of Human Resources for Waterbury. "We also quickly realized that we needed to implement processes and procedures, management processes and procedures, [and] also IT processes and procedures to capture these expenses, so that the city could accurately request reimbursement later on through the … CARES Act."

Laura Webb, HR Information Systems Manager for Waterbury, used Infor's HCM business management suite to track workers who took COVID-related leave and who took new mandatory training courses on topics such as illness prevention.

"Using the data to be able to turn around and maybe recapture some of the funds associated with these that are being made available is critically important," Morgan said. "The organizations that don't do that, I think, are putting their organizations in financial risk."

Going Digital

Fairfax County, Virginia Public Schools (FCPS)

"We did not have a very large network culture as a school division at the time when we had to close down," said Michael Draeger, Director of HR Business Services for FCPS. So last March, FCPS scrambled to accommodate 25,000 employees and 188,000 students — one of the largest school divisions in the country.

This meant getting employees, including teachers, trained on technology to support distance learning, but it also meant being able to proceed with hiring for the 2020-21 school year, the bulk of which happens in late spring and summer.

"We had to rethink our visitors just coming in for their onboarding and background check processing," Draeger said. "We were able to leverage data from our systems to create a homegrown employment scheduling system that we were able to link into that hiring and onboarding process."

Cloud Support

Elsinore Valley, California Municipal Water District

Early adoption of the cloud made the district well prepared for the pandemic, said then-Director Jim Ollerton. The last piece of its cloud-based multi-tenant, anywhere-access enterprise resource planning system went live in January 2020, so when things shut down two months later, district workers could continue seamlessly.

Employees were able to process payroll, issue contracts and requisitions, hire and promote workers and more all through their mobile devices, Ollerton said. They also automated the COVID-19 emergency sick leave plans according to FFCRA, he added.

"It's really put us in a really good place to make us very productive," Ollerton said.

Collaboration Boost

Idaho

The state controller's office processes payments of more than $9 billion a year to the state's 25,000 employees — and it was in the process of implementing Infor's cloud suite for HR management when the pandemic began. Social distancing meant the 70 team members working on the project — dubbed Luma — couldn't be in one location, which turned out to be a boon.

Benefits of the remote-work environment include increased weekday productivity because of less travel time, the ability to hold several meetings at the same time, and greater collaboration and engagement opportunities, said Brandon Woolf, Idaho Controller.

"The cloud-based products allowed us to quickly adapt and pivot during the pandemic for greater collaboration from any location," Woolf said.

They also supported the state's work with posting all CARES Act distributions and reimbursements on the controller's office transparency website, Transparent Idaho. Within three weeks, "our team set up websites and processes to work with all 1,700 of the local government units within Idaho to register and then begin distributing the CARES Act funds while posting all actuals on Transparent Idaho," Woolf said.

Budget Helper

Greensboro, North Carolina

Leah Price, Budget Database Specialist at Greensboro's Budget and Evaluation Department, used Questica software to test budget-cut scenarios that would put the city of about 300,000 residents on a recovery path. The biggest contributors to the city's shortfall were loss of sales tax and tourism revenue.

To reduce costs, the city manager recommended cutting travel and training expenses for city workers, delaying step compensation structure increases for police and firefighters, and taking money from other benefits to create hazard pay. Additionally, the city manager wanted to see how adjusting cost of living by half a percentage point from 0% to 3% would affect the budget.

"It was just every idea that they could come up with to try to figure out how to make the next year happen," Price said. Ultimately, the fiscal 2020-21 budget set for the city was about $602 million.

Verbatim

The COVID-19 pandemic let government agencies and workers see what's possible with modern technologies. Below, several public-sector thought leaders share lessons learned — and ways forward:

"The district's early cloud strategy [made us] very well prepared for the COVID-19 pandemic. When the state of California stay-at-home order was issued in March, we were able to send over 60% of our staff home the next day, and they were 100% productive in their jobs."

– Jim Ollerton, then-IT Director at the Elsinore Valley Municipal Water District

Last year "pushed us, and it challenged us to all grow, to improve and to become more efficient and effective, to work smarter and to roll up our sleeves and just get things done. … We innovated, we partnered with fellow state agencies and we found unique solutions to the problems that faced us. … And we discovered we can be productive while providing that workplace flexibility."

– Brandon Woolf, Idaho Controller

"Last year was a lot of learning to think out of the box. We had to really think on our feet, come up with solutions, come up with ideas, partner with other departments in the city to make sure that not only HR's needs were met, but payroll's needs were met, pension and benefits, our employees' needs were met. … Yes, there was challenges, but it actually gave us an opportunity to grow and change things and think out of the box and come up with better solutions."

– Laura Webb, HRIS Manager for Waterbury

"It's always kind of been the 'Wow, can we do it?' [The pandemic helped with] leapfrogging most of us several years on our roadmap for asset management and the improvements in automation."

– Kevin White, IT Technical Lead and Project Manager at NIF

"We've learned a lot of new things that we can take into the future because I think remote learning, training, working, is going to be a wave of the future. So, we've got a real good start, a real good handle on how we're going to do that moving forward and from my perspective as the HR director, we want to improve and enhance on that for 2021 and beyond. And we'd also like to better be able to collect and leverage employee data of all sorts, starting from an application stage, and continuing out through their entire employment career."

– Scott Morgan, HR Director for Waterbury

"Change for a lot of folks means discomfort, and I think that's key. That discomfort is really what leads to growth, and I see that growth as really the biggest benefit to this past year."

– Michael Draeger, FCPS's Director of HR Business Services

What the Future Holds

The pandemic put agencies on the modernization fast track, and now that agencies have these new technological capabilities, they're not about to give them up. Instead, they've spurred areas for further growth. Nigel Stephens, Vice President of Government Affairs at Infor, said the three biggest areas ripe for advancement in 2021 are efficiency, security and resiliency.

- *Efficiency* – "The economic impact of COVID on local, state and federal agency budgets has accelerated the migration to cloud, as-a-service technologies and shared service models to reduce lifecycle cost of IT, transition maintenance responsibility and cost to the service provider, and cut costs by eliminating duplicated back-office functions and services," Stephens said. Support for such work is strong. He pointed to a Professional Services Council survey of 11 federal chief information officers that found that they expect modernization to be a priority in the next four years.

- *Security* – Security is a perpetual priority, but "the fiscal 2021 National Defense Authorization Act (NDAA) and the Omnibus Appropriations Act both raise the bar on cybersecurity initiatives, leadership structures and funding," Stephens said. For instance, NDAA creates a national cybersecurity director at the White House level. What's more, Congress allocated $2 billion for the Cybersecurity and Infrastructure Security Agency, including $716 million for national cyber protection and $214 million for the Continuous Diagnostic and Mitigation Program.

- *Resiliency* – NDAA supports the use of augmented intelligence in which AI can supplement government workers' knowledge and skills to increase their efficiency and effectiveness. The bill also spotlights machine learning and robotic process automation and their dependence on data quality and transparency. "This prioritization, particularly the accuracy and resiliency of that data, to redeem the benefits of AI and automation, is a trend that we expect to see in defense and civilian agencies over the next few years," Stephens said.
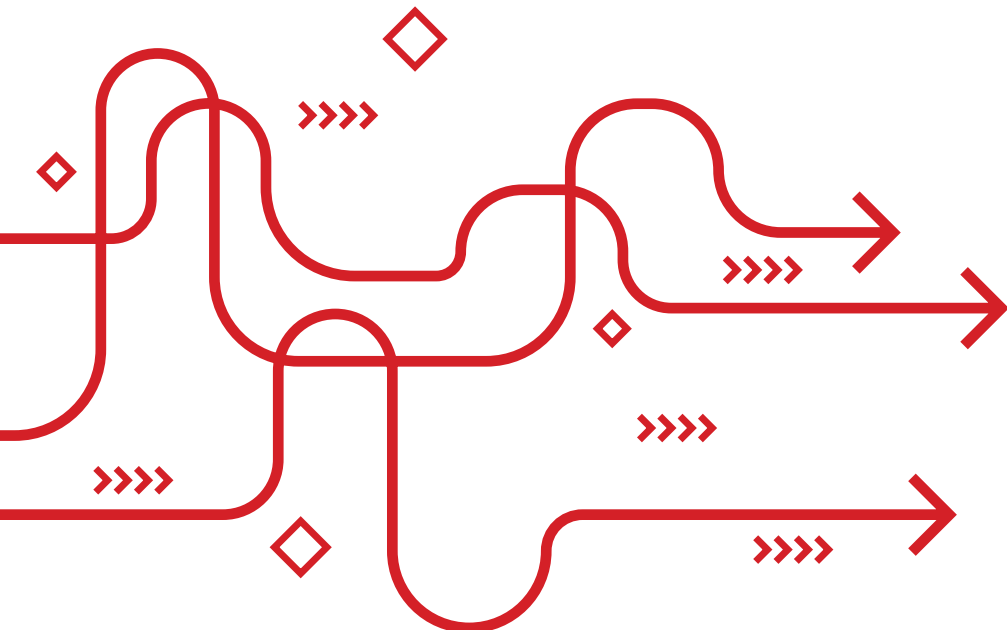
How Infor Can Help

Infor is a global leader in enterprise cloud software with more than 40 years' experience serving the public sector. Its solutions are designed to deliver more value and less risk, with more sustainable operational advantages. Its 17,000 employees use their experience and data-driven insights to create, learn and adapt quickly to emerging challenges, including the coronavirus.

"We've been able to offer solutions around COVID tracking and reporting, and we continue to look for ways to help improve this pandemic," said Stewart Applbaum, Executive Vice President and General Manager of the Public-Sector Organization at Infor. "We continue to make very big investments around our global risk management and our cloud compliance. We continue to provide much more secure environments across both our commercial and our [government] cloud offerings."

Infor has developed an Essentials program for small and mid-sized cities and counties, to allow them to realize the same benefits that larger governments do, in terms of having an ability to move to the cloud in a way that is cost-effective, he said.

For more information: www.infor.com/en-au/industries/public-sector

Conclusion

Webinar participants made it clear that the IT changes they made to better respond to the pandemic have much more far-reaching consequences. Here are three takeaways from their stories:

- **Embrace cloud.** Organizations that had cloud in place, such as the Idaho Controller's Office and California's Elsinore Valley Municipal Water District, fared better with adapting to the fast changes the pandemic demanded. "This increased productivity would not have been possible without the use of several cloud-based products," Woolf said of his team's accomplishments.

- **Stay accountable with technology.** The right tools can help agencies manage a sudden influx of data, such as the flood resulting from FFCRA and the CARES Act. Waterbury relied and still relies on Infor solutions to keep records on new leave pay requirements. "Ultimately, it's our responsibility to make sure our employees are paid correctly," Webb said.

- **Seize new opportunities with mobile.** NIF has made what will likely be permanent changes to its operations as technicians turned to mobile technologies in the field. They also tried emerging tech such as VR and discovered new and better ways to conduct training.

About Infor

Infor is a global leader in business cloud software products for companies in industry specific markets. Infor builds complete industry suites in the cloud and efficiently deploys technology that puts the user experience first, leverages data science, and integrates easily into existing systems.

Over 68,000 organizations worldwide rely on Infor to help overcome market disruptions and achieve business-wide digital transformation.

For more information, visit www.infor.com.

About GovLoop

GovLoop's mission is to inspire public sector professionals by serving as the knowledge network for government. GovLoop connects more than 300,000 members, fostering cross-government collaboration, solving common problems and advancing government careers. GovLoop is headquartered in Washington, D.C., with a team of dedicated professionals who share a commitment to the public sector.

For more information about this report, please reach out to info@govloop.com.

www.govloop.com | @GovLoop